Reviewer's report

Title: Epidemiology of acute kidney injury in Hungarian intensive care units: a multicenter, prospective, observational study

Version: 3 Date: 2 June 2011

Reviewer: Monique M Elseviers

Reviewer's report:

Dear authors,

I read with interest your revised version of the manuscript describing the epidemiology of AKI in Hungarian ICUs. The quality of the paper improved considerably. More in-depth and appropriate statistical analysis has been performed but the paper still shows shortcomings, particularly in the presentation of the data.

1. Major Compulsory Revisions

1.1 Writing of the paper:

The paper still needs some language corrections before publication. Example given: Methods: Study participants … After ethical approval from each participating centre … The participating centres ….

1.2 Methods - Statistical analysis

Please give the p-value considered as the significance level

1.3 Results

# The order of presenting the results in the first paragraphs is still confusing and not logic. Basic characteristics of AKI patients were compared with non-AKI patients already in the first paragraph. It is only in the second paragraph however, that the number of AKI patients is presented.

# Mortality and length of stay. Mortality data need to be checked carefully. The terminology used differed between text and tables. Does in-hospital mortality include ICU mortality? Also the frequencies given in the result section are confusing. What is the difference of overall AKI mortality of 49% in the first sentence with the AKI hospital mortality of 39.3% in the second sentence?

# Particularly the presentation of data in the tables still shows important shortcomings:

o Table 1 shows a mix of mean (SD), median (range) and frequencies in numbers – please define what is used – please replace the numbers with percentages

o Table 2: please give the total number of patients included at the top of each column – make a clear separation after row 1 + row 2 (medical – surgical) forming together 100% and all other so-called ‘premorbid conditions’ forming
another classification system

- Table 3: please give a more explanatory title for this table – for the second part of the analysis, clarify if the risk factors presented here, focused on AKI stage 3 versus non-AKI or AKI stage 3 versus all other patients (including also AKI stage 1 and 2)

- Table 4: please give the total number of patients included at the top of each column – give percentages in place of raw numbers

- Table 5: it is not clear if the results presented in this table are based on the total population or only on the AKI patients

1.4 Discussion

Several points in the discussion show a flaw in the reasoning mixing up causes and effects (e.g. AKI in the elderly). If the cause and effect relationship is not clear, it has to be clearly stated (e.g. mechanical ventilation, AKI, mortality)

2. Minor Essential Revisions

Please define also the abbreviations IHD, CVVHDF

3. Discretionary Revisions

It is common practice to give also for not statistical significant results the exact p-value in place of the abbreviation NS

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests